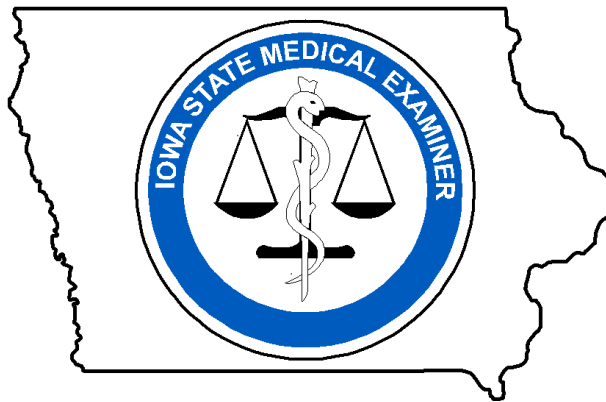




# Iowa Office of the State Medical Examiner



## Annual Report 2015

## 2015 Annual Report

# Iowa Office of the State Medical Examiner

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## **INTRODUCTION**

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The Iowa Office of the State Medical Examiner (IOSME) was established in 1976. In May 1999, Governor Thomas J. Vilsack signed legislation approving the move of the office from the Department of Public Safety to the Department of Public Health.

The primary role of the office is to provide support, guidance, education, consultation, and training to county medical examiners and their investigators. County medical examiners investigate violent, suspicious, and unexpected natural deaths that occur in their counties. Upon a county medical examiner's request, the Iowa Office of the State Medical Examiner will assist at the death scene and perform the autopsy.

The Iowa Office of the State Medical Examiner is committed to providing tireless support, education, consultation, and training to each of the county medical examiner offices in order to assist them in the investigation of deaths throughout the state.

## **MISSION STATEMENT**

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The mission of the Iowa Office of the State Medical Examiner is:

*To establish credibility in death investigation in  
a system that will operate efficiently and serve  
the needs of the citizens of Iowa.*

## **STATE MEDICAL EXAMINER ADVISORY COUNCIL**

The State Medical Examiner Advisory Council was established in 1999 via Iowa Code 691.6C. This Council was established to “advise and consult with the state medical examiner on a range of issues affecting the organization and functions of the office of the state medical examiner and the effectiveness of the medical examiner system in the state.”

The Advisory Council meets on a biannual basis and is currently holding meetings by ICN and in person with origination at the Iowa Office of the State Medical Examiner conference room.

Membership is determined by Dr. Julia Goodin, State Medical Examiner, in consultation with Gerd Clabaugh, Director, Iowa Department of Public Health.

### **Current membership:**

Gary Baumbach, MD	University of Iowa, Department of Pathology
Scott Brown	Attorney General’s Office
Thomas Carroll, MD	Iowa Association of Pathologists
Gerd Clabaugh	Director, Iowa Department of Public Health
Chris Corken	Iowa County Attorney’s Association
James Fullerton	Iowa Funeral Directors Association
Julia Goodin, MD	State Medical Examiner
Keith Hansen, DO	Iowa Association of County Medical Examiners
Dennis Klein, MD	Deputy State Medical Examiner
Dennis Mallory, DO	Iowa Medical Society ( <i>dec. 5/18/2015</i> )
Bruce Reeve	Iowa Department of Public Safety
Thomas Summitt	Iowa Emergency Medical Services Association
Kurt Swaim	Iowa Public Defender’s Office

## **INTERAGENCY COORDINATING COUNCIL**

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The Interagency Coordinating Council was created by the Iowa Legislature in 1999 with the purpose to advise the state medical examiner concerning the assurance of effective coordination of the functions and operations of the Office of the State Medical Examiner with the needs and interests of the Departments of Public Safety and Public Health [IA Code 691.6B].

Members of the Interagency Coordinating Council include the state medical examiner; the commissioner of Public Safety, the director of Public Health, and the governor, or a representative designated by the member.

The Interagency Coordinating Council meets on a biannual basis.

The current members of the Interagency Coordinating Council are:

Gerd Clabaugh	Director Iowa Department of Public Health
Julia Goodin, MD	Chief State Medical Examiner Iowa Office of the State Medical Examiner
Dennis Klein, MD	Deputy State Medical Examiner Iowa Office of the State Medical Examiner
Mitch Mortvedt	Assistant Director of Field Operations Division of Criminal Investigation
Nicholas Pottebaum	Policy Advisor Office of the Governor

## **COUNTY MEDICAL EXAMINERS**

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The primary function of the county medical examiner is to determine a truthful, logical, and scientifically unbiased statement of the cause and the manner of death. (Iowa Code 331.801-805 and Administrative Code 641-127 govern county medical examiner activities).

County medical examiners are uniquely qualified to investigate the deaths of individual citizens in their counties, not only because of their medical training, but also by virtue of the fact they usually live and work in the counties in which they serve. County medical examiners must display uncompromising honesty, integrity, and loyalty to their community and their oath, regardless of any pressure they may receive from outside sources.

The county medical examiner of any of the counties is a physician appointed by the Board of Supervisors of that county to act in an official capacity to investigate and make a report of any death as described in Iowa Code section 331.802(3).

The county medical examiner shall be licensed in this state as a doctor of medicine and surgery, a doctor of osteopathic medicine and surgery, or an osteopathic physician.

The county medical examiner shall be appointed, from lists submitted by the medical society and the osteopathic society of the particular county, for a period of two years (a period of time that shall commence on January 1, if it is not a Sunday). If a qualified physician in the particular county cannot be identified, the Board of Supervisors may appoint a physician from outside the particular county.

The county medical examiner is required by law to make inquiry into the cause and manner of death of any individual meeting the criteria outlined in Iowa Code section 331.802(3) and make a report of this to the state medical examiner, the county attorney where the incident occurred and/or any law enforcement agency having jurisdiction.

The county medical examiner shall make a determination as to the most probable cause and manner of death, and issue the death certificate for those deaths within their jurisdiction as outlined by the statute.

The county medical examiner will determine if an autopsy is needed, and will make a written request.

The county medical examiner shall issue permits as required by the county and/or state which are necessary for the disposition of a dead body (to include cremation and embalming permits).



The duties of a county medical examiner can be quite time-intensive, as someone must be available 24 hours per day, 7 days per week. Therefore, that county medical examiner is authorized to appoint deputy or assistant county medical examiner and county medical examiner investigators to assist him/her in the fulfillment of his/her duties.

These deputy medical examiners must be physicians who are licensed in the state of Iowa and who have been approved for service by the state medical examiner. The county medical examiner is responsible to train and/or secure training for his/her deputies.

## **FACILITY**

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A laboratory facility housing the IOSME also houses the Department of Public Safety, Agriculture & Land Stewardship, and the University of Iowa Hygienic Laboratory. It opened in March 2005 on the Des Moines Area Community College (DMACC) campus in Ankeny, Iowa.

The facility allows the IOSME to house both the office and the morgue in one building allowing the SME to maintain accreditation with the National Association of Medical Examiners, aiding recruitment of high quality workers and federal grant eligibility.

The facility improves services provided by the IOSME and provides the capabilities to:

- ❖ Perform complex autopsies efficiently in a biologically safe and physically secure facility.
- ❖ Protect and secure evidence and records for criminal cases in a manner that meets or exceeds stringent court scrutiny as well as state and national standards.
- ❖ Operate cooler space for deceased individuals awaiting identification and/or autopsy.
- ❖ Handle multiple deaths as necessary for disaster preparedness, including infectious diseases or mass disasters.

The IOSME staff is available to perform autopsies and assist with medicolegal death investigations 24 hours per day, 7 days per week, 365 days per year.

## **REPORTABLE DEATHS**

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As per Iowa Code 331.802(3), certain types of deaths are to be reported to the county medical examiner. A medical examiner death is defined as a death that affects the public interest and is unexpected, unexplained, and/or unwitnessed. These deaths affect the public interest and include, but are not limited to, any of the following:

- a. Violent death, including homicidal, suicidal, or accidental death.
- b. Death caused by thermal, chemical, electrical, or radiation injury.
- c. Death caused by criminal abortion including self-induced, or by sexual abuse.
- d. Death related to disease thought to be virulent or contagious which may constitute a public hazard.
- e. Death that has occurred unexpectedly or from an unexplained cause.
- f. Death of a person confined in a prison, jail, or correctional institution.
- g. Death of a person who was prediagnosed as a terminal or bedfast case who did not have a physician in attendance within the preceding thirty days; or death of a person who was admitted to and had received services from a hospice program as defined in section 135J.1, if a physician or registered nurse employed by the program was not in attendance within thirty days preceding death.
- h. Death of a person if the body is not claimed by a relative or friend.
- i. Death of a person if the identity of the deceased is unknown.
- j. Death of a child under the age of two years if death results from an unknown cause or if the circumstances surrounding the death indicate that sudden infant death syndrome may be the cause of death.

## **STATUTORY DUTY STATE MEDICAL EXAMINER**

---

Iowa Code 691.5-6C and Administrative Rule 641-126 govern the Iowa Office of the State Medical Examiner. Autopsies are performed at the request of county medical examiners for those deaths that are reportable. The duties of the state medical examiner are:

1. To provide assistance, consultation, and training to county medical examiners and law enforcement officials.
2. To keep complete records of all relevant information concerning deaths or crimes requiring investigation by the state medical examiner.
3. To adopt rules pursuant to chapter 17A, and subject to the approval of the Director of Public Health, with the advice and approval of the State Medical Examiner Advisory Council.
4. To collect and retain autopsy fees as established by rule. Autopsy fees collected and retained under this subsection are appropriated for purposes of the state medical examiner's office. Notwithstanding section 8.33, any fees collected by the state medical examiner that remain unexpended at the end of the fiscal year shall not revert to the general fund of the state or any other fund but shall be available for use for the following fiscal year for the same purpose.
5. To conduct an inquiry, investigation, or hearing and administer oaths and receive testimony under oath relative to the matter of inquiry, investigation, or hearing, and to subpoena witnesses and require the production of records, papers, and documents pertinent to the death investigation. However, the medical examiner shall not conduct any activity pursuant to this subsection, relating to a homicide or other criminally suspicious death, without coordinating such activity with the county medical examiner, and without obtaining approval of the investigating law enforcement agency, the county attorney, or any other prosecutorial or law enforcement agency of the jurisdiction to conduct such activity.
6. To adopt rules pursuant to chapter 17A relating to the duties, responsibilities, and operations of the office of the state medical examiner and to specify the duties, responsibilities, and operations of the county medical examiner in relationship to the Office of the State Medical Examiner.
7. To perform an autopsy or order that an autopsy be performed if required or authorized by section 331.802 or by rule. If the state medical examiner assumes jurisdiction over a body for purposes of performing an autopsy required or

authorized by section 331.802 or by rule under this section, the body or its effects shall not be disturbed, withheld from the custody of the state medical examiner, or removed from the custody of the state medical examiner without authorization from the state medical examiner.

8. To retain tissues, organs, and bodily fluids as necessary to determine the cause and manner of death or as deemed advisable by the state medical examiner for medical or public health investigation, teaching, or research. Tissues, organs, and bodily fluids shall be properly disposed of by following procedures and precautions for handling biologic material and bloodborne pathogens as established by rule.
9. To collect and retain fees for medical examiner facility expenses and services related to tissue recovery. Fees collected and retained under this subsection are appropriated to the state medical examiner for purposes of supporting the state medical examiner's office and shall not be transferred, used, obligated, or otherwise encumbered. Notwithstanding section 8.33, any fees collected by the state medical examiner shall not revert to the general fund of the state or any other fund.

## **STATUTORY DUTY DEPUTY STATE MEDICAL EXAMINER**

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Iowa Code 691.6A governs the Deputy State Medical Examiner creation and duties.

The position of deputy state medical examiner is created within the Office of the State Medical Examiner. The deputy state medical examiner shall report to and be responsible to the state medical examiner. The deputy state medical examiner shall meet the qualification criteria established in section 691.5 for the state medical examiner and shall be subject to rules adopted by the state medical examiner as provided in section 691.6, subsection 3.

The state medical examiner and the deputy state medical examiner shall function as a team, providing peer review as necessary, fulfilling each other's job responsibilities during times of absence, and working jointly to provide services and education to county medical examiners, law enforcement officials, hospital pathologists, and other individuals and entities.

The deputy medical examiner may be, but is not required to be, a full-time salaried faculty member of the Department of Pathology of the University of Iowa College of Medicine. If the medical examiner is a full-time salaried faculty member of the Department of Pathology of the University of Iowa College of Medicine, the Iowa Department of Public Health and the State Board of Regents shall enter into a chapter 28E agreement to define the activities and functions of the deputy medical examiner, and to allocate deputy medical examiner costs, consistent with the requirements of this section.

## **ORGAN AND TISSUE DONATION ACTIVITIES**

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Organ and tissue transplantation can have tremendous lifesaving and life altering benefits to patients who are in need. The IOSME supports and encourages organ and tissue donation whenever it is possible. Due to the wide geographical area covered by the IOSME, coordinating body transportation, acquiring case information, timing of autopsy, and timing of organ and tissue recovery can be a very challenging task.

Many cases requiring medicolegal autopsies are also cases that would be eligible for organ and tissue donation. However, timing, logistics, and access to medical and investigative information are the major factors that may limit the number of medical examiner cases that can also undergo donation. Both the IOSME and the Iowa Donor Network (IDN) recognized there was a large overlap and duplication in information that needs to be acquired by both agencies. In November 2013, IDN partnered with the IOSME and appointed a fulltime liaison, who resides permanently at the IOSME, to streamline and facilitate the process of gathering information for both death investigation and potential donation. The liaison attended the St. Louis course on medicolegal death investigation, received many hours of training and mentorship in death investigation, and is now in the state medical examiner investigator rotation. In 2015, a second IDN liaison was added to the IOSME team. In addition to coordinating tissue donation, thus increasing efficiency and likelihood of successful donation in suitable candidate cases, the liaisons also assist IOSME pathologists with medicolegal death investigation.

During the 2006 Legislative session, HF2768 was introduced and signed into law by Governor Vilsack. Subsection 8 in Iowa Code 691.6 allows the State Medical Examiner's Office to collect and retain fees for the expenses and services related to tissue recovery. These fees help offset the expense with the use of the tissue recovery suite.

Iowa Donor Network basic criteria and procedures for potential donors are included in the County Medical Examiner's Handbook. The IOSME and IDN continue to improve communications to ensure a successful relationship that provides an essential service to the public.

See the following two pages for IDN statistical data.

## **IOWA DONOR NETWORK REFERRALS**

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### **Non-Hospital Death Activity Report 2015**

Referral and Donor Activity Report

\*Hospice and Nursing Home Deaths are not included

<b>Referral Agency</b>	<b>Referrals</b>	<b>Donors</b>
Adams County Medical Examiner	1	0
Akron Ambulance Service	2	1
Algona Ambulance Service	3	0
Anamosa Area Ambulance	2	1
Appanoose County Medical Examiner	3	1
Area Ambulance Service (Cedar Rapids)	2	0
Area Ambulance Service (Buchanan County)	2	0
Audubon County Medical Examiner	4	1
Benton County Medical Examiner	6	4
Blackhawk County Medical Examiner's Office	18	3
Boone County EMS	6	3
Bremer County Medical Examiner	3	0
Buchanan County Medical Examiner	1	0
Buena Vista County Medical Examiner	4	1
Burgess Health Center Ambulance	3	0
Burlington Fire Department	8	0
Calhoun County EMS	5	0
Calhoun County Medical Examiner	9	1
Carroll County Medical Examiner	1	0
Cedar County Medical Examiner	3	1
Cerro Gordo County Medical Examiner	11	4
Cherokee RMC Pre-Hospital Care	2	1
Chickasaw County Medical Examiner	3	1
Clarke County Medical Examiner	8	0
Clay County Medical Examiner	1	0
Clinton County Medical Examiner's Office	3	1
Coon Rapids Police Department	1	1
Dallas County EMS	1	1
Dallas County Medical Examiner	9	3
Decatur County Medical Examiner	2	0
Delaware County Medical Examiner	3	1
Des Moines County Medical Examiner Office	2	0
Dubuque County Medical Examiner's Office	2	0



Referral Agency	Referrals	Donors
Emmet County Medical Examiner	3	0
Franklin County Medical Examiner	4	0
Fremont County Medical Examiner	1	1
Granville Fire and Rescue	2	0
Guthrie County Medical Examiner	1	0
Hancock County Medical Examiner	4	3
Hardin County Medical Examiner	7	1
Harrison County Medical Examiner	6	0
Hartford Fire & Rescue	1	1
Henry County Medical Examiner	4	0
Iowa County Medical Examiner	3	2
Iowa Office of the State Medical Examiner	345	19
Jackson County Medical Examiner	1	0
Jackson County Reg HC Ambulance Service	4	1
Jasper County Medical Examiner	2	1
Johnson County Medical Examiner	80	10
Keokuk County Medical Examiner	13	0
Kossuth County Medical Examiner	10	0
Lakes Regional Healthcare EMS	12	3
Linn County Medical Examiner	29	6
Louisa County Medical Examiner	3	1
Lucas County Emergency Services	1	0
Madison County Medical Examiner	4	0
Mahaska County Medical Examiner	6	3
Mapleton EMS	1	0
Marion County Medical Examiner's Office	21	3
Medic EMS	1	0
Midwest Ambulance Service of Iowa - Des Moines	1	0
Mobile Intensive Care Services – Mary Greeley	1	0
Monona County Medical Examiner	1	0
Montgomery County Medical Examiner	1	0
Muscatine County Medical Examiner	32	2
Newton Fire Department	1	0
Ogden First Responders	1	0
Ottumwa EMS	1	0
Oxford Junction Ambulance	4	0
Page County Medical Examiner	1	0
Palo Alto Ambulance Service	2	1
Palo Alto County Medical Examiner	8	1
Pocahontas County Medical Examiner	2	0
Pocahontas EMS	1	0
Polk County Medical Examiner	427	32
Pottawattamie County Medical Examiner	107	7
Poweshiek County Medical Examiner	1	0
Runnells Fire Department	2	2

Referral Agency	Referrals	Donors
Sac County Medical Examiner	1	0
Scott County Emergency Communications Center	100	2
Scott County Medical Examiner's Office	21	2
Siouxland Paramedics	55	4
Spencer Hospital Ambulance	8	1
Spirit Lake EMS	4	1
Story County EMS	4	1
Story County Medical Examiner	10	2
Tama County Medical Examiner	7	2
Taylor County Medical Examiner	3	0
Tipton Ambulance Service	1	1
Union County ME	5	1
Van Buren County MEI	1	0
Wapello County Medical Examiner	4	2
Warren County Medical Examiner	3	2
Washington County Medical Examiner	8	1
Webster County Medical Examiner	15	4
Winneshiek County Medical Examiner	4	0
Worth County Medical Examiner	1	0
<b>Total</b>	<b>1552</b>	<b>156</b>

### 2015 Non-Hospital Tissue Referral Outcomes

Tissue Donors	156	Not Medically Suitable	1127
Family Declines	107	Medical Examiner Decline	59
Consented Not Recovered	84	Deeded Body Donor	0
No Next-of-Kin Found	16	Weather Deferral	3

In 2015, the IOSME was involved in 345 referrals that resulted in 94 tissue donors:

- ◆ 19 tissue donors came directly from IOSME referrals, and
- ◆ 75 tissue donors were from external referrals with the IOSME involved in some manner of the process.

Of the 94 cases IDN recovered:

- ◆ 52 were pre-autopsy
- ◆ 37 were post-autopsy
- ◆ 5 additional cases with no autopsy in which IDN utilized the IOSME Recovery Suite

These recoveries resulted in:

Skin	57	Femoral Vein	35
Bone and Associated Tissue	85	Adipose	7
Heart for Valve	20	Juvenile Cartilage	4
Saphenous Vein	48	Eye	4

Iowa Donor Network recovered 66 cases at the IOSME Recovery Suite.

## 2015 Statewide Organ Referrals

Organ Donors	60	Cardiac Arrested on Vent	39
Family Declines	20	Consented Not Recovered	8
Patients Not Brain Dead	518	Medical Examiner Decline	0
Not Medically Suitable	125	Referred, Survived	102

## **ACCREDITATION**

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The IOSME received accreditation from the National Association of Medical Examiners (NAME) in 2008 and continually works toward maintaining that status. Accreditation is awarded for a five-year period.

On November 6, 2012, the IOSME was inspected for reaccreditation. The office achieved its goal of passing this inspection with no deficiencies. The IOSME is currently accredited through November 6, 2017.

In January 2016, the IOSME successfully completed the annual accreditation verification. NAME now requires yearly review of the accreditation checklist in order to ensure continued accreditation. The IOSME passed the interim verification process with no issues.

## **BUDGET AND STAFFING**

The IOSME receives its funding from the State of Iowa general fund appropriation, charges and fees for autopsies performed and a portion of the fees collected by Vital Records for copies of death certificates.

<b>Fiscal Year</b>	<b>General Fund Appropriation</b>	<b>Autopsy Fees Collected</b>	<b>Death Certificate Fees Collected</b>
FY2000	357,184 (transfer)	0	0
FY2001	514,029	213,500	0
FY2002	544,103	339,000	0
FY2003	497,220	406,100	0
FY2004	511,211	372,395	0
FY2005	526,268	512,100	185,238
FY2006	865,270	707,052	379,320
FY2007	984,981	690,590	383,187
FY2008	1,143,497	879,659	393,162
FY2009	1,262,566	725,943	393,015
FY2010	932,138	864,953	390,655
FY2011	903,782	800,410	402,606
FY2012	852,801	964,800	410,535
FY2013	822,084	1,020,062	420,013
FY 2014	822,084	1,084,450	405,449
FY2015	822,084	1,059,100	403,825

Predictions for Fiscal Years 2016 and 2017 are indicated below.

<b>Fiscal Year</b>	<b>General Fund Appropriation</b>	<b>Autopsy Fees Collected</b>	<b>Death Certificate Fees Collected</b>
FY2016	822,084	1,008,000	400,000
FY2017	822,084	1,050,000	400,000

The IOSME currently has 12.0 FTEs. Current staff includes:

1 Chief State Medical Examiner	3 Secretaries
1 Deputy State Medical Examiner	1 Medicolegal Death Investigators
2 Associate State Medical Examiners	1 Radiological Technologist
1 Director of Forensic Operations	2 Autopsy Technicians

The IOSME supplements the staffing shortfall with temporary part-time employees. These employees work in the capacity of forensic autopsy technicians, forensic morgue attendants, medicolegal death investigator assistants, and office clerical staff. The number of part-time temporary employees averaged 30 in 2015.

## **GOALS FOR THE FUTURE**

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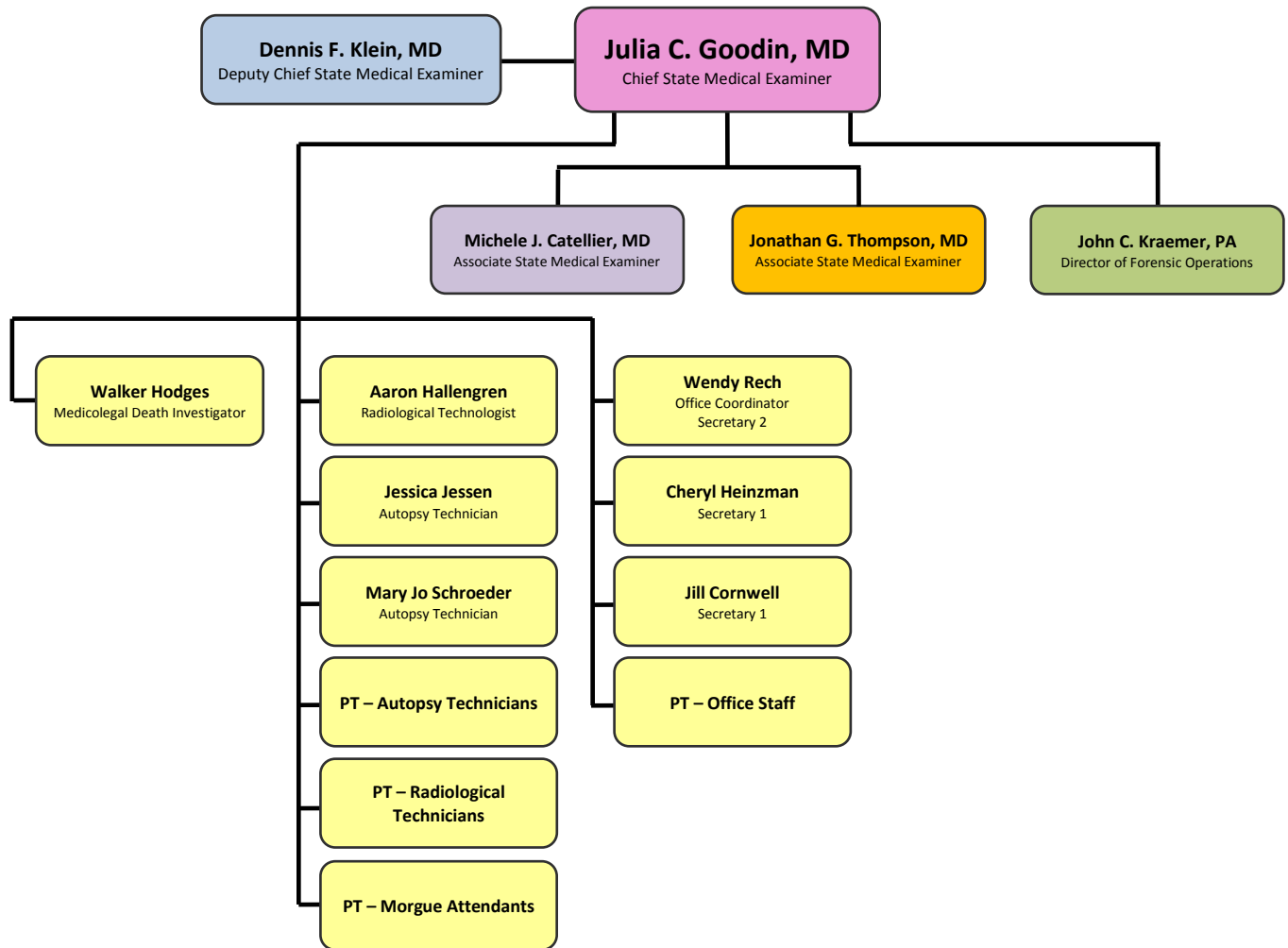
Many of the original goals set in 1999 have been met. Anticipating the needs of the future, goals are updated periodically.

The following are some of the current goals established for the office:

- ✓ Continue to complete the majority of autopsies within 60 days of request and all within 90 days, with an additional goal of completing cases within 30 days when possible.
- ✓ Complete homicide cases within 30 days.
- ✓ Recruit and retain quality staff.
- ✓ Provide a supportive work environment, and promote professional growth and quality.
- ✓ Continue accreditation with the National Association of Medical Examiners (NAME).
- ✓ Promote the work quality of the IOSME so that the citizens of Iowa understand that the IOSME is an independent and objective investigative agency.
- ✓ Establish funding for the continuous operation of the IOSME and allow retention of funds to cover the costs for death investigation and autopsies.
- ✓ Implement a comprehensive case management system in stages, which will ultimately include a web portal system allowing county medical examiner personnel to enter cases directly into the system.
- ✓ Maintain rotation for fourth-year medical students from Des Moines University and continue Community-based Primary Care Clerkship for medical students from the University of Iowa.
- ✓ Establish a forensic pathology fellowship program.
- ✓ Continue to improve mass disasters plans.
- ✓ Continue to develop the Iowa Mortuary Operations Response Team (IMORT) Team, and increase volunteer members and training.

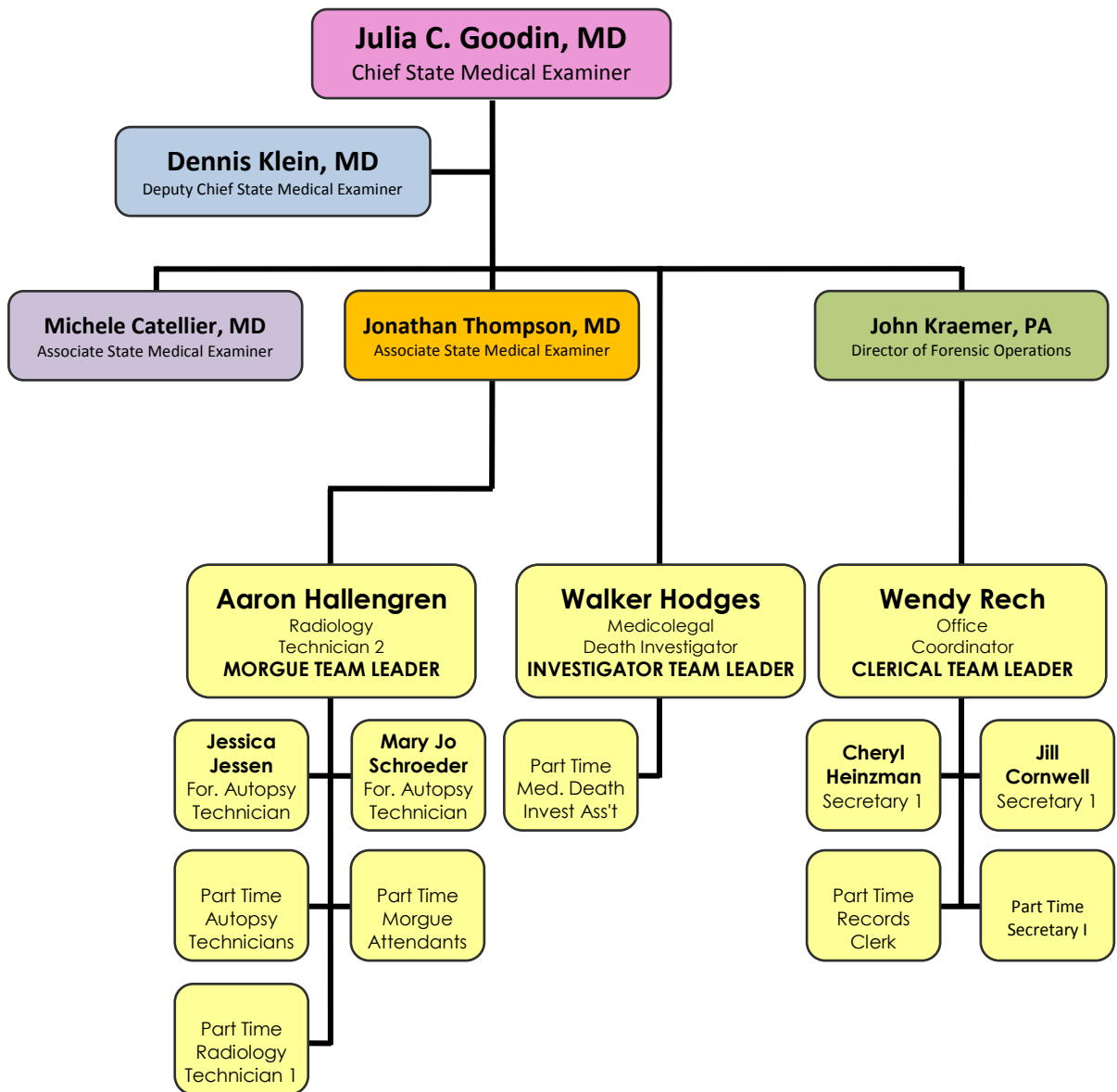
# ORGANIZATIONAL CHART

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# FUNCTIONAL MANAGEMENT CHART

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## **OVERVIEW - CASES**

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The following statistics encompass the ten-year period of 2006 through 2015.

The statistics included within this report are based on information provided to the IOSME. Researchers interested in additional mortality statistics may contact the Bureau of Vital Records.

Comments or suggestions concerning the content, format, or clarity of the information are encouraged so that we may continue to improve its contents.

## **STATISTICAL INFORMATION**

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The Iowa Office of the State Medical Examiner oversees 99 county medical examiner offices. The following information has been gathered from all 99 counties and reflects the state as a whole. However, there is statistical information provided that reflects how the Iowa Office of the State Medical Examiner performs its duties as the central office. The graphs and information will be labeled according to which entity we are referring.

### **Central Office Numbers for the Year 2015**

**Total medical examiner cases reported in Iowa:**

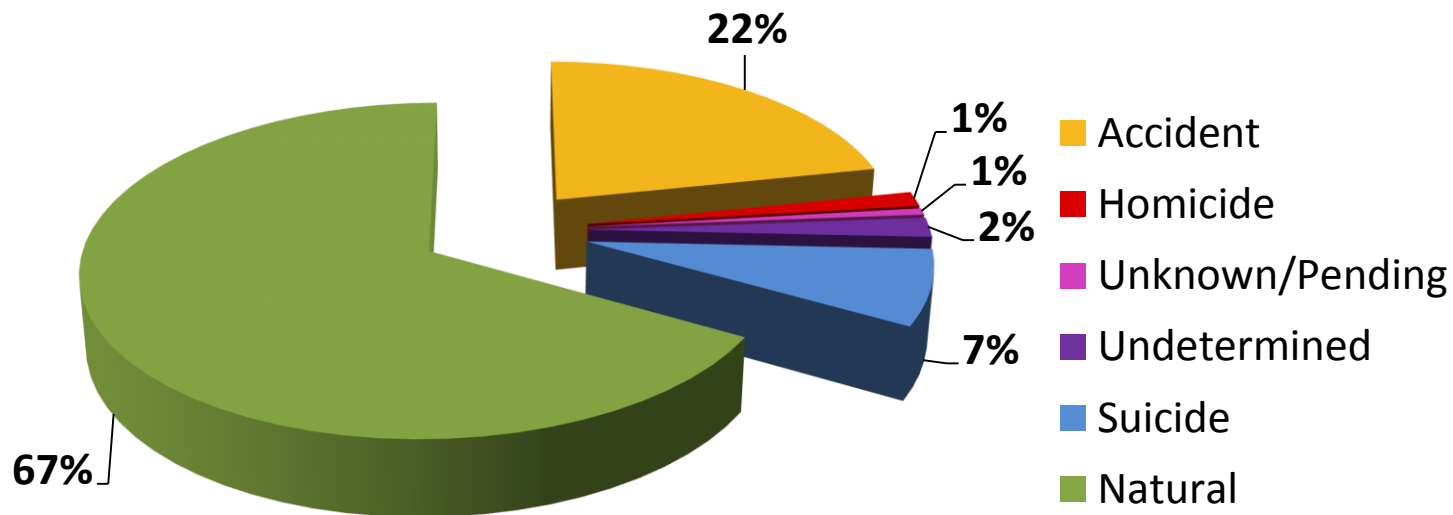
**5,250**

<b>Total cases accepted by IOSME for autopsy .....</b>	<b>756</b>
<b>Total scenes attended.....</b>	<b>7</b>
<b>Total bodies transported by office .....</b>	<b>0</b>
<b>External examinations.....</b>	<b>0</b>
<b>Complete autopsies .....</b>	<b>753</b>
<b>Partial autopsies.....</b>	<b>3</b>
<b>Cases where toxicology is performed.....</b>	<b>747</b>
<b>Bodies unidentified after examination.....</b>	<b>0</b>
<b>Organ and tissue referrals/donations .....</b>	<b>345 / 94</b>
<b>Unclaimed bodies .....</b>	<b>0</b>
<b>Exhumations.....</b>	<b>0</b>
<b>Bodies transported to the office.....</b>	<b>756</b>
<b>Hospital autopsies retained under ME jurisdiction .....</b>	<b>0</b>

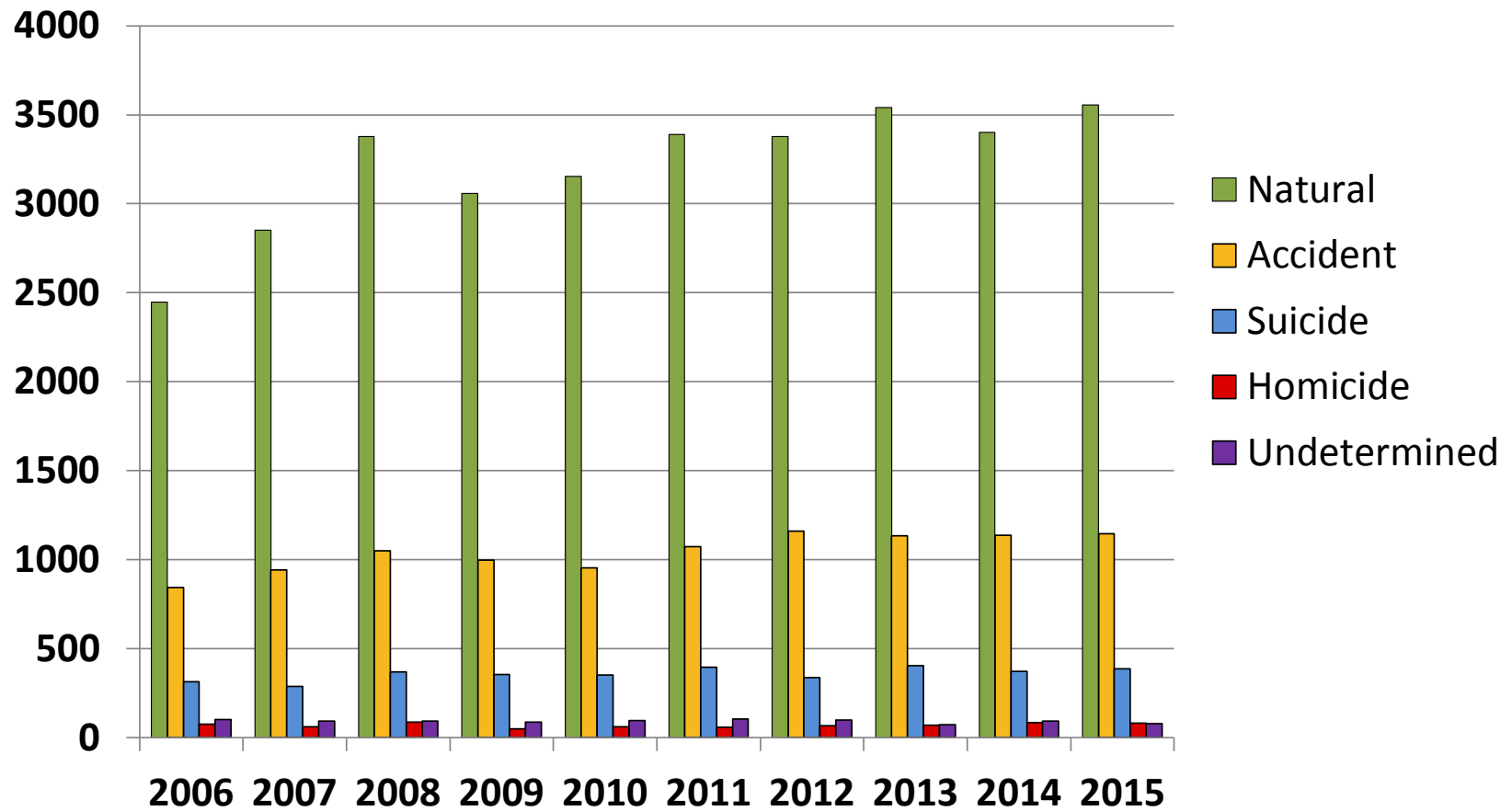
(Central office does not accept hospital autopsies)

# Iowa County Medical Examiners Investigated 48,296 Deaths From January 2006 through December 2015

Manner of Death



# Iowa Deaths



# Iowa Deaths

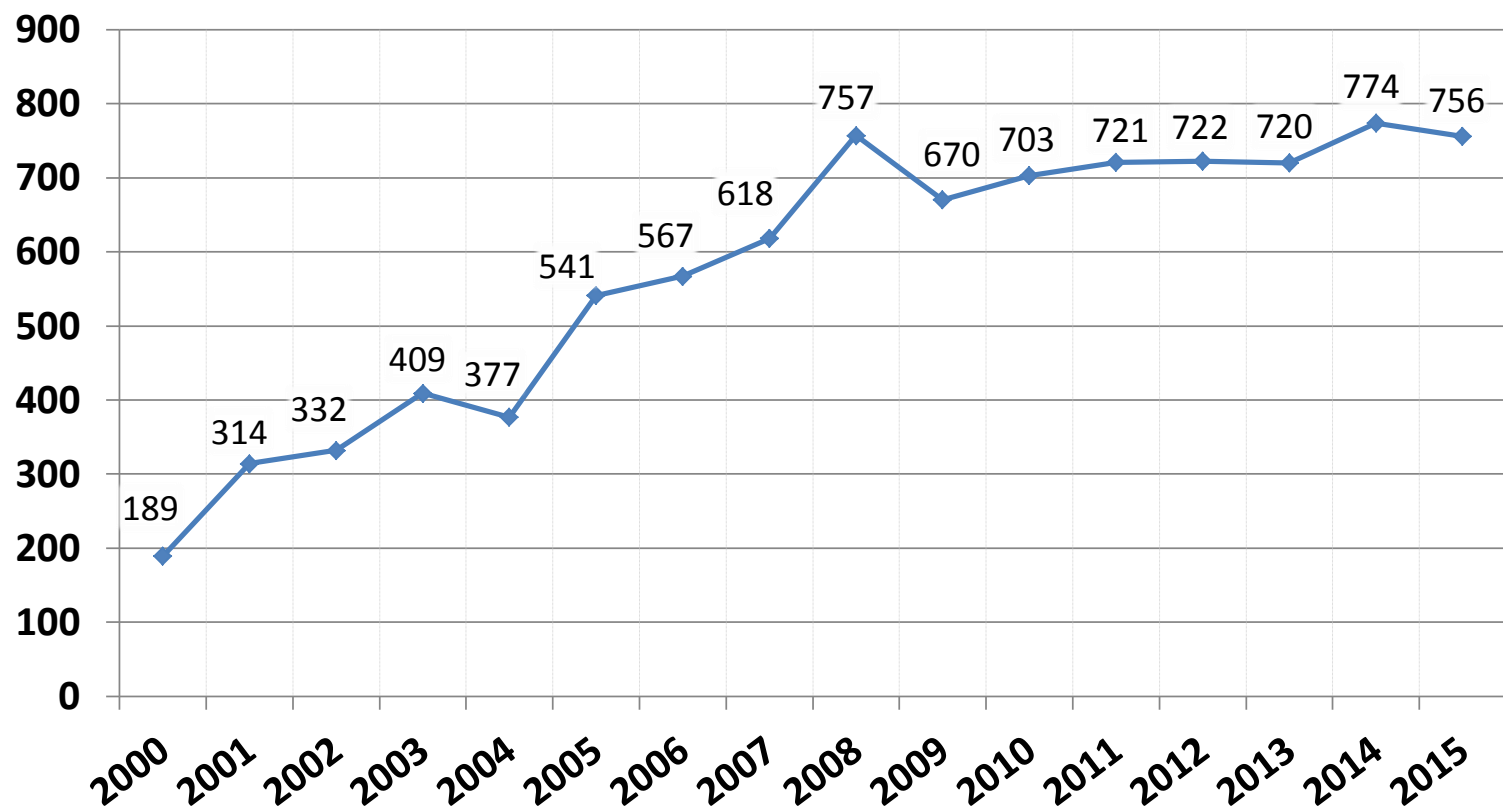
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
<b>Total Deaths in Iowa</b>	<b>27,289</b>	<b>27,126</b>	<b>28,370</b>	<b>27,450</b>	<b>27,682</b>	<b>28,103</b>	<b>28,301</b>	<b>28,815</b>	<b>28,088</b>	<b>28,548</b>
<b>CME Investigated</b>	<b>3,779</b>	<b>4,237</b>	<b>4,977</b>	<b>4,552</b>	<b>4,617</b>	<b>5,022</b>	<b>5,044</b>	<b>5,222</b>	<b>5,084</b>	<b>5,252</b>
<b>% of Total Deaths</b>	14%	16%	18%	17%	17%	18%	18%	18%	18%	18%
<b>Autopsies Requested</b>	<b>1,495</b>	<b>1,421</b>	<b>1,512</b>	<b>1,352</b>	<b>1,459</b>	<b>1,523</b>	<b>1,477</b>	<b>1,506</b>	<b>1,481</b>	<b>1,507</b>
<b>% of ME Cases</b>	40%	34%	30%	30%	32%	30%	29%	29%	29%	29%

# Medical Examiner Cases

## Manner of Death

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
<b>NATURAL</b>	<b>2,446</b>	<b>2,853</b>	<b>3,377</b>	<b>3,059</b>	<b>3,155</b>	<b>3,390</b>	<b>3,377</b>	<b>3,540</b>	<b>3,400</b>	<b>3,556</b>
% of ME Cases	65%	75%	89%	81%	83%	90%	89%	94%	90%	94%
<b>Autopsied</b>	<b>528</b>	<b>479</b>	<b>492</b>	<b>434</b>	<b>462</b>	<b>487</b>	<b>450</b>	<b>478</b>	<b>443</b>	<b>463</b>
% Autopsied	22%	17%	15%	14%	15%	14%	13%	14%	13%	13%
<b>ACCIDENT</b>	<b>843</b>	<b>943</b>	<b>1,050</b>	<b>999</b>	<b>955</b>	<b>1,074</b>	<b>1,161</b>	<b>1,135</b>	<b>1,136</b>	<b>1,146</b>
% of ME Cases	22%	25%	28%	26%	25%	28%	31%	30%	30%	30%
<b>Autopsied</b>	<b>543</b>	<b>565</b>	<b>598</b>	<b>542</b>	<b>597</b>	<b>592</b>	<b>617</b>	<b>582</b>	<b>596</b>	<b>595</b>
% Autopsied	64%	60%	57%	54%	63%	55%	53%	51%	52%	52%
<b>SUICIDE</b>	<b>314</b>	<b>288</b>	<b>370</b>	<b>356</b>	<b>352</b>	<b>395</b>	<b>339</b>	<b>404</b>	<b>372</b>	<b>387</b>
% of ME Cases	8%	8%	10%	9%	9%	10%	9%	11%	10%	10%
<b>Autopsied</b>	<b>252</b>	<b>226</b>	<b>252</b>	<b>250</b>	<b>253</b>	<b>295</b>	<b>254</b>	<b>310</b>	<b>276</b>	<b>293</b>
% Autopsied	80%	78%	68%	70%	72%	75%	75%	77%	74%	76%
<b>HOMICIDE</b>	<b>75</b>	<b>61</b>	<b>87</b>	<b>51</b>	<b>60</b>	<b>58</b>	<b>67</b>	<b>69</b>	<b>84</b>	<b>83</b>
% of ME Cases	2%	2%	2%	1%	2%	2%	2%	2%	2%	2%
<b>Autopsied</b>	<b>75</b>	<b>61</b>	<b>86</b>	<b>50</b>	<b>59</b>	<b>57</b>	<b>67</b>	<b>69</b>	<b>84</b>	<b>83</b>
% Autopsied	100%	100%	99%	98%	98%	98%	100%	100%	100%	100%
<b>UNDETERMINED</b>	<b>101</b>	<b>92</b>	<b>93</b>	<b>87</b>	<b>95</b>	<b>105</b>	<b>100</b>	<b>74</b>	<b>92</b>	<b>80</b>
% of ME Cases	3%	2%	2%	2%	3%	3%	3%	2%	2%	2%
<b>Autopsied</b>	<b>97</b>	<b>90</b>	<b>84</b>	<b>76</b>	<b>88</b>	<b>92</b>	<b>89</b>	<b>67</b>	<b>82</b>	<b>73</b>
% Autopsied	96%	98%	90%	87%	93%	88%	89%	91%	89%	91%

# Deaths Autopsied by the Iowa Office of the State Medical Examiner



## CATEGORIES OF DEATH BY MANNER

**2015**  
**(Central Office Only)**

### **NATURAL**

Coronary Artery Disease	91
Cardiac (non-atherogenic)	25
Cerebrovascular	5
Chronic Alcohol	5
Congenital	4
Diabetes	8
Embolism	5
GI Hemorrhage	4
Hypertension	4
Infectious Disease	29
Mental Illness	1
Neoplasm	4
Neurological	
Degeneration	3
Pulmonary Disease	2
Renal Disease	1
Seizure	5
Other	3
	<hr/> 199

### **ACCIDENT**

Alcohol	2
Asphyxia	23
Bite Injury (animal)	1
Blunt Force Injury	138
Cardiac (non-atherogenic)	6
Cerebrovascular	1
Chronic Alcohol	2
Coronary Artery Disease	12
Diabetes	2
Drowning	11
Drug Use	73
Embolism	6
Exposure	3
Fire	17
Infectious Disease	5
Poisoning	2
Pulmonary Disease	1
Seizure	1
Other	2
	<hr/> 308

### **SUICIDE**

Asphyxia	4
Blunt Force Injury	4
Drowning	2
Drug Use	12
Fire	4
Firearm	83
Hanging	42
Poisoning	6
	<hr/> 157

### **UNDETERMINED**

Blunt Force Injury	1
Cerebrovascular	1
Chronic Alcohol	2
Coronary Artery Disease	1
Drowning	2
Drug Use	1
Sudden Unexpected Infant	18
Death	
Undetermined	15
	<hr/> 41

### **HOMICIDE**

Asphyxia	3
Blunt Force Injury	6
Drowning	1
Firearm	30
Sharp Force Injury	5
Undetermined	1
	<hr/> 46



## **SUMMARY**

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The Iowa Office of the State Medical Examiner (IOSME) has made tremendous progress in improving the oversight, guidance, and assistance to county medical examiners throughout the State of Iowa since its move to the Department of Public Health in 1999.

The IOSME has performed an increasing number of autopsies since 1999. The main reason for the increase has been due to the decrease in availability of pathologists throughout the state either willing or trained to perform forensic autopsies. The office has seen an increase in the number of yearly autopsies from under 200 in 2000 to a new record high of 774 in 2014. The previous record was 757 autopsies performed in 2008. In 2015, the IOSME performed 756 cases.

The new computer case management application, Forensic Advantage System (FAS), went into production at the end of June 2014. FAS is a customizable off-the-shelf application developed by The Computer Solutions Company (TCSC). The purchase was funded using Return on Investment (ROI) funds, IOSME general funds, and Coverdell grant funds. Some of the funds from the National Forensic Science Competitive Grant awarded to the IOSME in 2013 were used to cover expenses for necessary hardware to host FAS. Data entry into FAS began with entry of decedent's name, biographical information, and intake narrative information on cases accepted for autopsy at the IOSME. IOSME full-time and part-time staff were trained in these entry and tracking processes. Over the course of several months, additional functions were implemented in FAS, including entry of and tracking of specimens acquired during autopsy and tracking of evidence. IOSME staff continues to work with TCSC to improve certain features, as well as begin development of new features that will enhance the efficiency and power of the application.

The IOSME was awarded funding from Iowa Homeland Security and Emergency Management to develop a computer application that could supplement data management in the event of a mass fatality incident. Beginning in July 2014, IOSME drafted application requirements and budget for TCSC to develop a web based application module to allow entry and collation of mass fatality data. Development for beta testing is planned for February 2015, and product acceptance is planned for June 2015.

Education continues to be a priority. For several years now, federal Coverdell Grant funds have been used to send county medical examiner personnel to the St. Louis Medicolegal Death Investigator Training Course. In 2015, five county medical examiner investigators attended the course. Plans are to continue applying for this grant so additional county medical examiners and investigators may attend in the future. The course prepares death investigators to take the American Board of Medicolegal Death Investigators (ABMDI) Registry or Board certification exams.

Iowa now has thirty-six ABMDI registry-certified and ten board-certified medicolegal death investigators.

The IOSME provides opportunities for Des Moines University medical students to participate in two-week or four-week rotations to observe and assist with autopsies. Extensive training in pathology is provided by the medical examiners during the students' time on rotation. Radiology technology students also participate in three-day or one-week rotations, observing autopsies and assisting with radiological examinations. In addition, throughout the year IOSME pathologists and staff give educational lectures to attorneys, law enforcement, pathology residents, and mortuary science students.

The IOSME continues to support and participate in the annual Iowa Association of County Medical Examiners fall conference. Each year, the number of attendees has increased, and evaluation by those attendees is consistently positive.

The IOSME manages its website at [www.iosme.iowa.gov](http://www.iosme.iowa.gov). The website has pages for funeral homes, law enforcement, county medical examiners, and families. This is a major step in communicating and making information available to families. A form is available for next-of-kin to request a copy of the autopsy report, and information about the IOSME is readily available to them. In addition, county medical examiners and funeral homes can download forms specific to their needs. The site also has links to other agencies, a brief history of the IOSME, and Iowa Code and Administrative Rules pertinent to the IOSME. A media page is updated regularly with information regarding high-profile cases autopsied by the IOSME.

To ensure high quality death investigation, county medical examiners personnel must have special medical knowledge in forensic medicine. The IOSME is responsible for training and oversight for death investigations in Iowa. "ME101: A Primer for Medical Examiners and Medical Examiner Investigators" was established in 2007 and has been presented at nineteen locations across the state since its inception. This four-hour training seminar covers competency skills for medicolegal death investigations. Participants in this course are expected to fulfill the following objectives:

- Learn basic concepts in medicolegal death investigation, such as cause and manner of death and body identification.
- Practice skills in photography, documentation, and forensic pathology through didactic instruction and participating in mock death scenes.
- Gain knowledge in the medicolegal system and administrative rules pertinent to death investigation in the state of Iowa.
- Understand which cases come under medical examiner jurisdiction and which ones need to have an autopsy.
- Discover strategies for establishing cost effective contracts for body transportation and reimbursement for medicolegal death investigations.

In response to a repeated comment in participant evaluations of ME101, the IOSME produced a sequel program, ME102, which includes reviewing many of the core basics, as well as more advanced topics. New to ME102 is a more in-depth discussion of death certification, avoiding potential pitfalls, basic courtroom etiquette and testimony, and the importance of the autopsy findings in determining cause and manner of death. As part of ME102, participants have the opportunity to practice photography skills and have the photographs critiqued in class. Since many of the participants taking ME102 have previous instruction and experience, ample opportunity is provided to ask specific questions from problems or difficulties encountered in the field. During 2015, six ME 101 classes were held for county medical examiners and investigators.

The IOSME hosted and coordinated one skills lab in 2015 for new and experienced county medical examiner personnel. The lab focused on specific skills and concepts necessary to assist attendees in preparing for the American Board of Medicolegal Death Investigators Registry Exam. Five county medical examiners participated in this skills lab and reviewed drawing laboratory specimens, postmortem changes, scene photography, body examination, mass fatality planning, and courtroom etiquette.

The Iowa Mortuary Operations Response Team (IMORT) was developed via a partnership between the Iowa Department of Public Health, the IOSME, and other governmental and professional businesses in Iowa. IMORT's mission is to provide decedent recovery, identification, and assistance with medical examiner duties in a mass fatality event. IMORT has 58 members, with various professional backgrounds, including medicine, emergency management, law enforcement, mortuary services, dentistry, and forensic laboratory science. An exercise was held in July 2015, which demonstrated that help with organization is needed, as well as assistance with refrigeration of decedents. With the newfound knowledge, steps can be taken in order to ensure Iowa is prepared for a mass fatality event.

The IOSME endeavors to improve death investigation through involvement of employees in the Child Death Review Team, the Iowa Mortuary Operations Response Team, the Strangulation Task Force, the Fatality Assessment and Control Evaluation (FACE) program, and training other state agency personnel; creating training opportunities for county medical examiners and investigators so they can better serve their constituents; and teaching classes, providing lectures, and working with local universities and colleges to provide students with hands-on training for their future careers as forensic pathologists or other doctoral specialties, radiologic technologists, and mortuary science professionals.

The Iowa Office of the State Medical Examiner looks forward to continuing excellence in service to the citizens of Iowa.

Iowa Office of the State Medical Examiner  
Annual Report 2015

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